CALIFORNIA STATE PERSONNEL BOARD

SPECIFICATION

Schematic Code: LM30 Class Code: 1383 Established: 9/18/80 Revised: 11/6/90 Title Changed: --

PROGRAMMER II

DEFINITION

Under general direction, to plan and develop programs to be processed by electronic information processing information technology system equipment; under supervision, to perform systems analysis or systems programming (software) work; and to do other related work.

JOB CHARACTERISTICS

The class of Programmer II is the journey level programming class. Incumbents are assigned duties and responsibilities commensurate with their background and training.

Positions are permanently allocated to this class when the major portion of the functions inherent in the position do not include the more responsible, varied, and difficult assignments found in systems analysis, programming/analysis, and systems programming (software) journey level work.

TYPICAL TASKS

Studies the principles and techniques of the area of work to which assigned and applies them; designs applications programs and routines from program specifications; codes, tests, debugs, documents, and installs applications and routines; may assist in determining and analyzing the information processing needs of users, establishing the feasibility of computer information technology system solutions, and designing, monitoring, and implementing systems, programs, and routines; and may assist in the evaluation of proposed new or modified computer information technology system hardware and software and the development, installation, and measurement of systems programs.

MINIMUM QUALIFICATIONS

Unless otherwise stated, experience applicable to one of the following patterns may be combined on a proportional basis with experience applicable to other patterns to meet the total experience requirement.

<u>Either I</u>

One year of experience in the California state service performing programmer duties equivalent comparable to a Programmer I (Range B). (Applicants who will meet this requirement within three six months may be admitted to the examination but not appointed until the 12 months are completed.)

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Or II

Experience: Eighteen months of experience equivalent to that of a Programmer I in the California state service. (California state experience applied toward this requirement must include one year at the Programmer I, Range B, level.); and

<u>Education</u>: Equivalent to graduation from college. (Additional work experience as a programmer may be substituted for the education with six months of experience being equal to one year of education.)

One year of progressively responsible experience in information technology systems study, design, and programming that included responsibility on an information technology system project for analyzing operational methods and developing computer programs to meet desired results, including, under supervision, planning and developing programs performing information technology systems analysis and systems programming.

Or III

The equivalent to a Master's Degree in Computer Science. Applicants who will meet this requirement within six months may be admitted to the examination, but they must produce evidence of completion of this requirement before they can be considered eligible for appointment.

Completion of at least 60 semester units or 90 quarter units at a recognized college or university, of which 12 semester or 18 quarter units are comprised of information technology coursework.

Or IV

<u>Experience</u>: <u>Eighteen months of experience equivalent to that of a Programmer I in the California state service; and</u>

Education: Completion of the requirements for an associate of arts degree (60 semester units including 18 of data processing or computer science).

Successful completion of a recognized programmer apprenticeship program including programming courses with related laboratory work.

Or V

Successful completion of a recognized programmer apprenticeship. (Apprentices who are within six months of completion of their apprenticeship may be admitted to the examination, but they must present evidence of successful completion of their apprenticeship before they may be appointed.)

KNOWLEDGE AND ABILITIES

<u>Knowledge of</u>: Terms and concepts used in electronic data processing information systems technology.

<u>Ability to</u>: Reason logically and creatively; develop <u>electronic</u> <u>computer information technology system</u> routines; analyze data and draw logical conclusions; <u>speak and write communicate</u> effectively; prepare effective reports; work cooperatively with others and gain their respect and confidence.

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SPECIAL PERSONAL CHARACTERISTICS

Willingness to do detailed work requiring a high degree of mental concentration; a demonstrated capacity for development as evidenced by work history, academic attainment, or well-defined occupational or avocational interests; and a willingness and ability to accept increasing responsibility.

<u>ADDITIONAL DESIRABLE QUALIFICATIONS</u>

Equivalent to graduation from College with major work in an applied science such as computer science, mathematics, engineering, physics, or statistics and knowledge of program specifications, program design, program languages, electronic computer systems including their capabilities and limitations, program testing, program documentation, and program implementation.